



**DICEL**  
*energy*

**FREQ series**

Power : 3000VA to 7500VA Single Phase

VARIABLE  
CONVERTERS  
STABILIZER  
STATIC SOLUTION

Compact and light equipment in relation to their performances, realized in rack versions. Designed using the latest modern technology, FREQ series are reliable and multifunctional devices used simultaneously as stabilizer, frequency converter or voltage regulator. As all static converters, FREQ series permit an high dimension/power rate that can supply any load types (resistive, inductive and capacitive) with a perfect sinusoidal output waveform.

The standard line is able to cover most of the needs of the market, but dedicated and customized version can be studied on customer's requirements.



### *Electronic Stabilizer*

Equipped with auto-transformer (or transformer on request), constantly provides the value of the output voltage set, even if it is higher than input.

Unlike a traditional stabilizer – raised voltage driven, the output voltage waveform is always sinusoidal and the operating time for a change in the input voltage or for a load variation is extremely fast (<1ms). Output voltage setting is possible, depending on the model, either front panel or analog 0-10Vdc remote control.

### *Frequency converter*

These equipment allows to supply an output voltage with a frequency different from that of the power line, always with a perfect sinusoidal output voltage waveform.

### *Voltage converter*

Completely static power module easy to use as a valid and substitute to the traditional electromechanical regulator. The modern technology used allows to obtain rapid changes in voltage variations and perfectly stabilized output voltage sinusoidal waveform (HD<2%)



# FREQ SERIES

## STATIC SOLUTION instead of ELECTROMECHANICAL DEVICES

### *System benefits:*

- ✓ Improved handling → low size and weight
- ✓ Lack of moving parts, therefore no wear, no maintenance and no operation cost
- ✓ Better efficiency
- ✓ Dynamic response <1ms
- ✓ Improved stabilization accuracy
- ✓ Absolute stability of the output frequency to the load (accuracy 0,001%)
- ✓ Ability to absorb energy brownouts, without need of an ups.



# FREQ SERIES

## RACK VERSION SOLUTION

- ✓ LED command and buttons for output voltage regulation
- ✓ DIGITAL DISPLAY with Voltmeter and Ammeter
- ✓ Zinc-coated cabinet with brushed aluminum front side
- ✓ Interface 0-10Vdc = output voltage remote control



## Industrial production lines



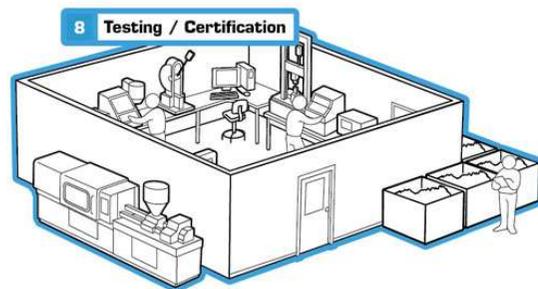
Because of repetitive line variations, high voltages spikes or voltage drops, is required to have absolute stability

## Test benches



In order to perform tests on electrical and electronic equipment (motors, resistors, valves etc...)

## Certification laboratories



# FREQ APPLICATIONS



Technical features	FREQ03R	FREQ05R	FREQ7.5R
Power supply W	3000W	5000W	7500W
Input Voltage	190-267V ac		
Input Frequency	50-60Hz		
Output voltage	3-270Vac		
Nominal output current at 270Vac	11A	18,5A	27,5A
Maximum output current at 270Vac (for 6 seconds)	16A	27A	41,5A
Output frequency	50-60Hz quartz (40-400Hz on request)		
Output voltage stability for line voltage change	1%		
Output voltage stability under varying load	+/-1%		
Output voltage regulation	Analog 0-10Vdc / button on the front panel		
Dynamic output voltage stability under varying load	+/-3%		
Full load efficiency	>93%		
Crest Factor	4:1		
Full load distortion	<3%		
Noise level dBA	45		50
Accuracy of response functions associated with 0-10Vdc	+/-1%		
Voltage regulation response time to vary the load or main voltage	<1ms		
Remote control reference voltage	Common ground with main ground line		
Cooling	Air forced		
Rack 19" size	4Ux560mm	5Ux560mm	6Ux560mm
Weight	18	22	29
Reference Standards	EN61000 – EN 50091		

